S/N: 09/607,069 Reply to Office Action of July 8, 2005

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1-22. (Cancelled)

- 23. (Currently Amended) A computer-implemented method for estimating market value of a used vehicle, the method comprising:
- A) <u>electronically</u> receiving data from a nearest neighbor database consisting of a number K of used vehicle nearest neighbor records, each used vehicle nearest neighbor record comprising resale information and a plurality of used vehicle features, at least one target used vehicle record comprised of a plurality of used vehicle features, at least one constraint for determining a neighbor relationship between a pair of used vehicles, and a neighborhood distance function for determining a distance between a pair of used vehicles, the number K is iteratively selected for estimation accuracy based on a historical database of N used vehicle records; and
- B) <u>electronically</u> determining an estimated value for the at least one target used vehicle based on the data from the nearest neighbor database, the at least one target used vehicle record, the at least one constraint, and the neighborhood distance function,

wherein the estimated value of the at least one target used vehicle is relied upon by individuals to at least price used vehicles for resale.

- 24. (Currently Amended) A computer-implemented method for estimating market value of a used vehicle, the method comprising:
- A) <u>electronically</u> receiving data from a nearest neighbor database consisting of a number K of used vehicle nearest neighbor records, each used vehicle nearest neighbor record comprising resale information and a plurality of used vehicle features, at least one target used vehicle record comprised of a plurality of used vehicle features, at least one constraint for determining a neighbor relationship between a pair of used vehicles, and a neighborhood distance function for determining a distance between a pair of used vehicles, the number K is

iteratively selected for estimation accuracy based on a historical database of N used vehicle records; and

B) <u>electronically</u> determining an estimated value for the at least one target used vehicle based on the data from the nearest neighbor database, the at least one target used vehicle record, the at least one constraint, and the neighborhood distance function,

wherein the determining step includes the use of neural networks, and wherein the estimated value of the at least one target used vehicle is relied upon by individuals to at least price used vehicles for resale.

25. (Cancelled)

- 26. (Previously Presented) The method of claim 23, wherein determining step B) is comprised of:
- B1) for each used vehicle nearest neighbor record in the nearest neighbor database, determining a weighted estimated value for the used vehicle nearest neighbor based on the data from the nearest neighbor database, the at least one target used vehicle record, the at least one constraint, and the neighborhood distance function; and
- B2) determining an estimated value for the at least one target used vehicle based on the weighted estimated values for the number K of used vehicle nearest neighbors.
- 27. (Previously Presented) The method of claim 23, wherein the resale information includes at least one item selected from the group consisting of resale date, region, mileage, condition, and resale price.
- 28. (Previously Presented) The method of claim 27, wherein the plurality of vehicle features for each used vehicle nearest neighbor record and the at least one target used vehicle record individually include at least two items selected from the group consisting of vehicle type, model, series, trim level, engine type, transmission type, moon roof equipped, leather interior, interior color, and exterior color.

- 29. (Previously Presented) The method of claim 27, wherein the resale information includes resale price and resale region.
- 30. (Previously Presented) The method of claim 29, wherein the at least one constraint includes a constraint selected from the group consisting of the pair of vehicles are the same model, the pair of vehicles are the same series, the pair of vehicles have the same model year, the pair of vehicles are the same vehicle series, the difference in mileage between the pair of vehicles is less than about 3,000 miles.
- 31. (Currently Amended) The method of claim 30, wherein the at least one used vehicle record further comprises resale [[plan]] information.
- 32. (Currently Amended) The method of claim 31, wherein the [[planned]] resale information includes at least one item selected from the group consisting of intended resale date and region.
- 33. (Currently Amended) A computer-implemented method for estimating market value of a used vehicle, the method comprising:
- A) electronically receiving data which includes: $V_1 \ comprised \ of \ a \ number \ N \ of \ v_1, \ each \ v_1 \ comprising \ resale \ information$ and f_1 , V_2 comprised of at least one v_2 , each v_2 comprised of f_2 , Const, F_d , K, and $Error_p$;
 - B) determining an Error_K based on V_1 , Const, F_d , and K; and
 - C) if $Error_K$ is less than about $Error_P$, then
- C1) electronically determining an estimated value for each v_2 in V_2 based on V_1 , V_2 , Const, F_d , and K;
 - C2) setting K to K plus 1 and $Error_p$ to $Error_K$; and
 - C3) looping to step B),

wherein:

 V_1 equals data from a historical database comprised of a number N of used vehicle records,

S/N: 09/607,069 Reply to Office Action of July 8, 2005

 v_1 equals a used vehicle record in V_1 ,

f₁ equals a plurality of vehicle features of v₁,

V₂ equals a data set comprised of at least one target used vehicle record,

v₂ equals a target used vehicle record,

f₂ equals a plurality of vehicle features of v₂,

Const equals an at least one constraint for determining a neighbor relationship between a pair of used vehicles,

 F_d equals a neighborhood distance function for determining a distance between a pair of used vehicles,

K equals a nearest neighbor value,

Error_P equals a previous estimation error, and

Error_K equals a used vehicle market error,

wherein the estimated value of each v_2 in V_2 is relied upon by individuals to at least price used vehicles for resale.

- 34. (Previously Presented) The method of claim 33, wherein the resale information includes at least one item selected from the group consisting of resale date, region, mileage, condition, and resale price.
- 35. (Previously Presented) The method of claim 33 wherein step B) is comprised of:
 - B1) for each v_1 in V_1 ,
- $B11) \quad \text{determining a neighbor group V' of K used vehicles v'} \\ \text{for v from V_1 based on Const, F_d, and f_1;}$
- $B12) \quad \text{for each v' in V', determining a weighted estimated value} \\$ for v_1 based on v', f_1 and $F_d;$
- B13) determining an estimated value for v_1 based on each weighted estimated value of v_1 ;
- B14) determining an estimated error for v_1 based on the estimated value for v_1 and the resale price of v_1 ; and

S/N: 09/607,069 Reply to Office Action of July 8, 2005

- B2) determining $Error_K$ based on the estimated error for each v_1 in V_1 , and N.
- 36. (Previously Presented) The method of claim 33 wherein step C1) is comprised of:

for each v₂ in V₂,

C11) determining a nearest neighbor group V" of K used vehicles v" for v_2 from V_1 based on Const, F_d , f_1 , and f_2 ;

C12) for each v" in V", determining a weighted estimated value for v_2 based on v", F_d , f_1 , and f_2 ;

C13) determining an estimated value for v_2 based on each weighted estimated values of v_2 .

- 37. (Previously Presented) The method of claim 36 further comprising C14) storing v_2 with the estimated value for v_2 in a data set V_3 of used vehicles v_3 with estimated market values.
- 38. (Previously Presented) The method of claim 33, wherein f_1 , and f_2 include at least two items selected from the group consisting of vehicle type, model, series, trim level, engine type, transmission type, moon roof equipped, leather interior, interior color, and exterior color.
- 39. (Previously Presented) The method of claim 38, wherein Const includes a constraint selected from the group consisting of the pair of vehicles are the same model, the pair of vehicles are the same series, the pair of vehicles have the same model year, the pair of vehicles are the same vehicle series, the difference in mileage between the pair of vehicles is less than about 3,000 miles.

-6-

Atty Dkt No. 81056121 (FMC 1236 PUS)

S/N: 09/607,069 Reply to Office Action of July 8, 2005

- 40. (Previously Presented) The method of claim 39, wherein each v_2 further comprises planned resale information, wherein the planned resale information includes at least one item selected from the group consisting of intended resale date, region and resale channel.
- 41. (Previously Presented) The method of claim 33, wherein the determining step C1) includes the use of neural networks.
 - 42. (Cancelled)

-7-